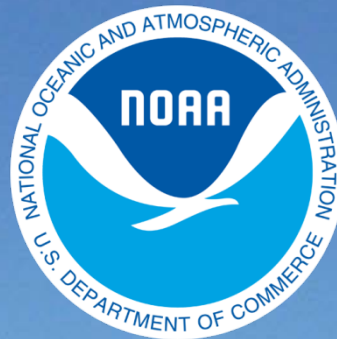
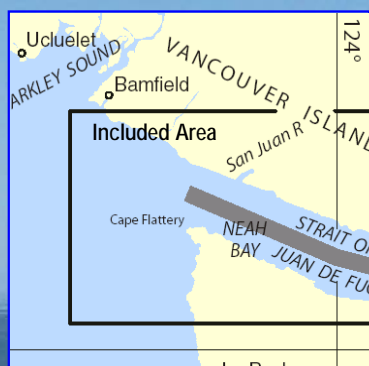


# BookletChart™

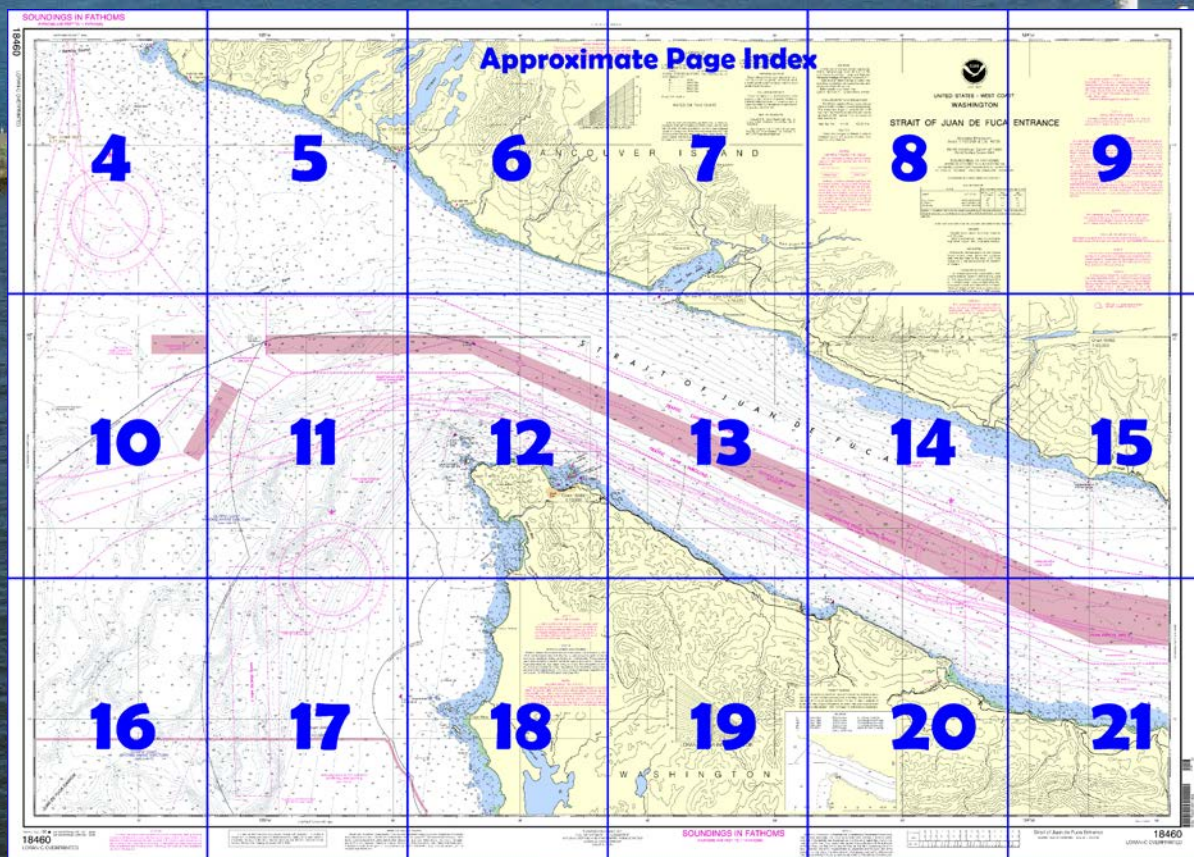
## ***Strait of Juan de Fuca Entrance*** **NOAA Chart 18460**



***A reduced-scale NOAA nautical chart for small boaters***  
***When possible, use the full-size NOAA chart for navigation.***



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



**Published by the**  
**National Oceanic and Atmospheric Administration**  
**National Ocean Service**  
**Office of Coast Survey**  
[www.NauticalCharts.NOAA.gov](http://www.NauticalCharts.NOAA.gov)  
**888-990-NOAA**

### What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

### What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

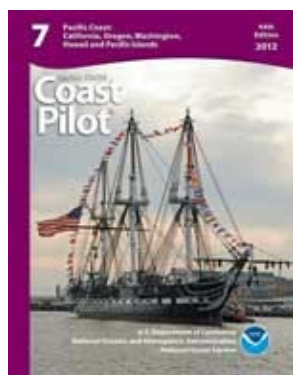
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

### Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=18460>.



### (Selected Excerpts from Coast Pilot)

**Cape Alava** is 13 miles S of Cape Flattery. The seaward face is about 0.6 mile in extent. **Tskawahyah Island**, a steep rocky island is off its NW extremity. The shore is bordered by numerous rocks and covered ledges. **Flattery Rocks** and **Umatilla Reef** are rocks and islets extending W from Cape Alava for 2.3 miles. **Ozette Island**, 236 feet high, is 0.8 mile SW of the cape. The island, 0.5 mile long, is flat-topped with steep sides. About 0.3 mile off the S and SE sides are low, black rocks. **Bodelteh Islands**, 1.2 miles WNW of the N end of Cape Alava, have high bold seaward faces.

In season, a few fishermen find shelter in an anchorage off the SE end of Ozette Island. The area is small and requires local knowledge to enter. It affords fair protection from the prevailing NW wind.

**Umatilla Reef**, 2.3 miles NW of Cape Alava, the greatest danger to navigation off this section of the coast, is 0.7 mile W of the outer Bodelteh Island. It extends for 200 yards in a W direction and is about 75 yards wide. The reef consists of small, low, black rocks and some breakers. There is a rock covered ½ fathom, 0.3 mile E of Umatilla Reef, which endangers passage inside, sometimes used by small boats.

**Point of Arches**, 5 miles NNE of Cape Alava, is the N point of the cliffs that extend some 1.5 miles S. Numerous rocks and ledges are offshore as far as about a mile.

**Father and Son**, two rocks connected by a low reef, lie 0.6 mile offshore abreast the S end of the cliffs. From the outer rock to Spike Rock there are several exposed rocks.

A **Cooperative Vessel Traffic Service (CVTS)** has been established in the Strait of Juan de Fuca region, based on an agreement between the United States and Canada. Operated by the U.S. Coast Guard and the Canadian Coast Guard, the system is intended to enhance safe and expeditious vessel movement, and to minimize risk of pollution to the marine environment; the system is **mandatory**. The appropriate Vessel Traffic Center (VTC) (Tofino Traffic, Seattle Traffic, Victoria Traffic) administers the rules issued by both nations, however, it will enforce only its own set of rules within its jurisdiction. The CVTS Exchange lines delineating the sector boundaries and frequency change lines between Vessel Traffic Center management authorities are published below and in the VTS User's Manual. Useful information for operating in the CVTS area is available via <http://www.uscg.mil/d13/cvts>.

**Caution.**—Since logging is one of the main industries of the region, free-floating logs and submerged deadheads or sinkers are a constant source of danger in the Strait of Juan de Fuca and Puget Sound. The danger is increased during freshets, after storms, and unusually high tides. **Deadheads** or **sinkers** are logs which have become adrift from rafts or booms, have become waterlogged, and float in a vertical position with one end just awash, rising and falling with the tide.

**Currents, Cape Flattery to Race Rocks.**—The currents may attain velocities of 2 to 4 knots, varying with the range of tide, and are influenced by strong winds. E of Race Rocks, in the wider portion of the strait, the velocity is considerably less. At Race Rocks and Discovery Island the velocity may be 6 knots or more.

The **flood current** entering the Strait of Juan de Fuca sets with considerable velocity over Duncan and Duntze Rocks, but, instead of running in the direction of the channel, it has a continued set toward the Vancouver Island shore, is experienced as far as Race Rocks. The flood current velocity is greater on the N shore of the strait than on the S.

The **ebb current** is felt most along the S shore of the strait, and between New Dungeness Light and Crescent Bay there is a decided set S and W, especially during large tides. With the wind and swell against the current, a short choppy sea is raised near the entrance to the strait.

**Pilotage, Strait of Juan de Fuca and Puget Sound.**—Pilotage is compulsory for all foreign vessels and U.S. vessels engaged in foreign trade. Pilotage is optional for U.S. vessels engaged in the coastwise trade with a federally licensed pilot on board.

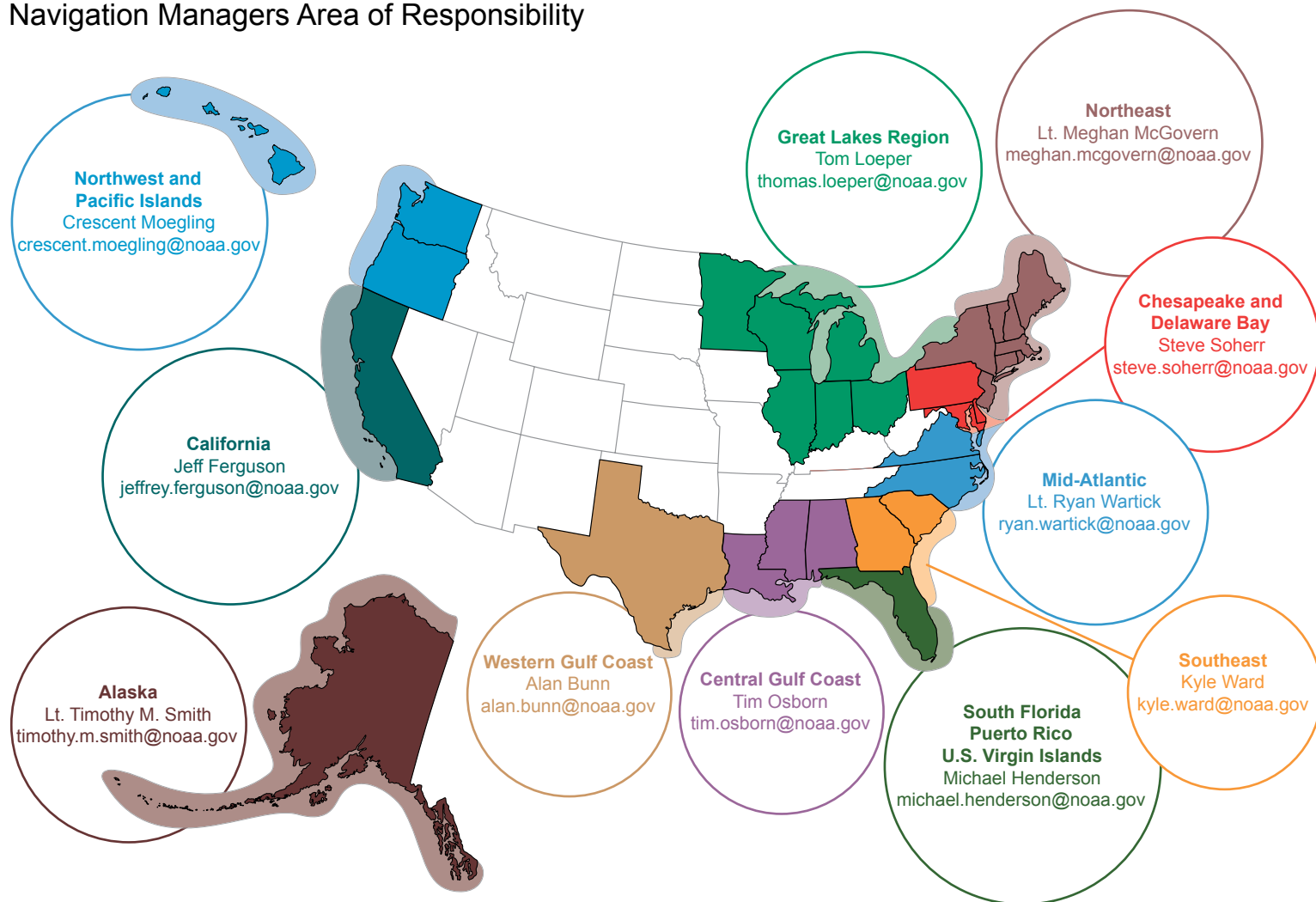
A Canadian Armed Forces **firing** and **practice exercise area** is established in the vicinity of Sheringham Point and San Simon Point about 8 miles to the W.

### U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Seattle      Commander  
13<sup>th</sup> CG District      (206) 220-7001  
Seattle, WA



# Navigation Managers Area of Responsibility



**NOAA's navigation managers** serve as ambassadors to the maritime community.

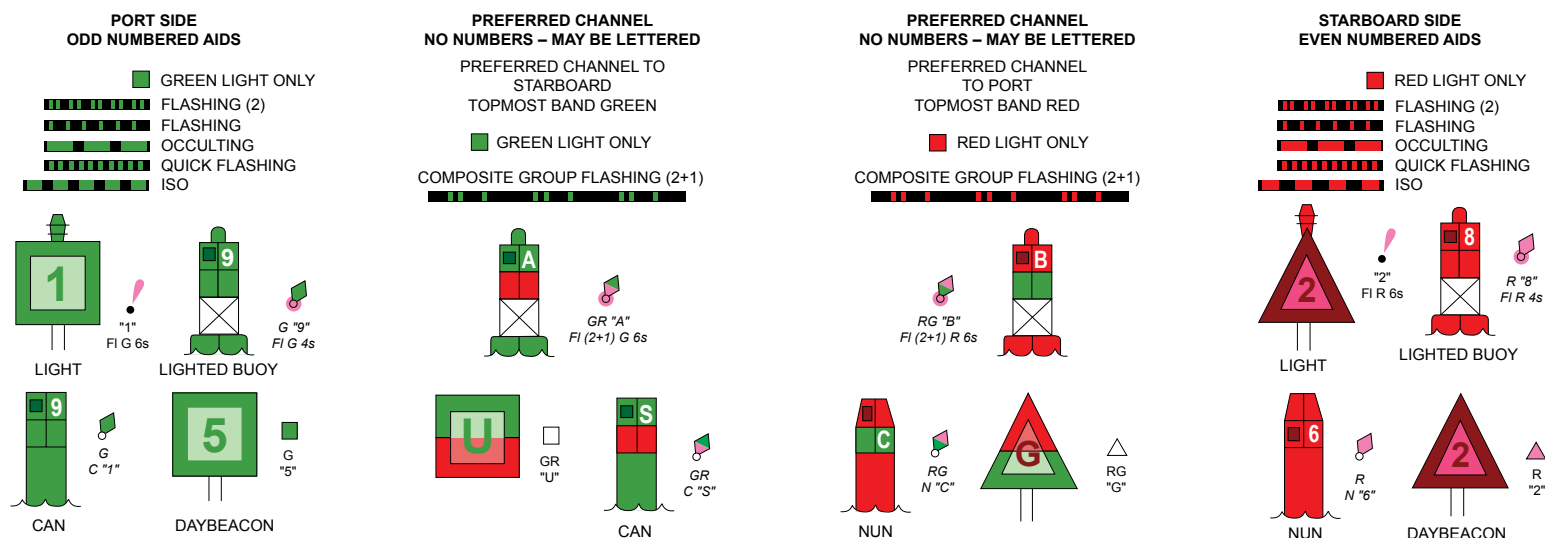
They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit [nauticalcharts.noaa.gov/service/navmanagers](http://nauticalcharts.noaa.gov/service/navmanagers)

To make suggestions or ask questions online, go to [nauticalcharts.noaa.gov/inquiry](http://nauticalcharts.noaa.gov/inquiry).

To report a chart discrepancy, please use [ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx](http://ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx).

## Lateral System As Seen Entering From Seaward

on navigable waters except Western Rivers

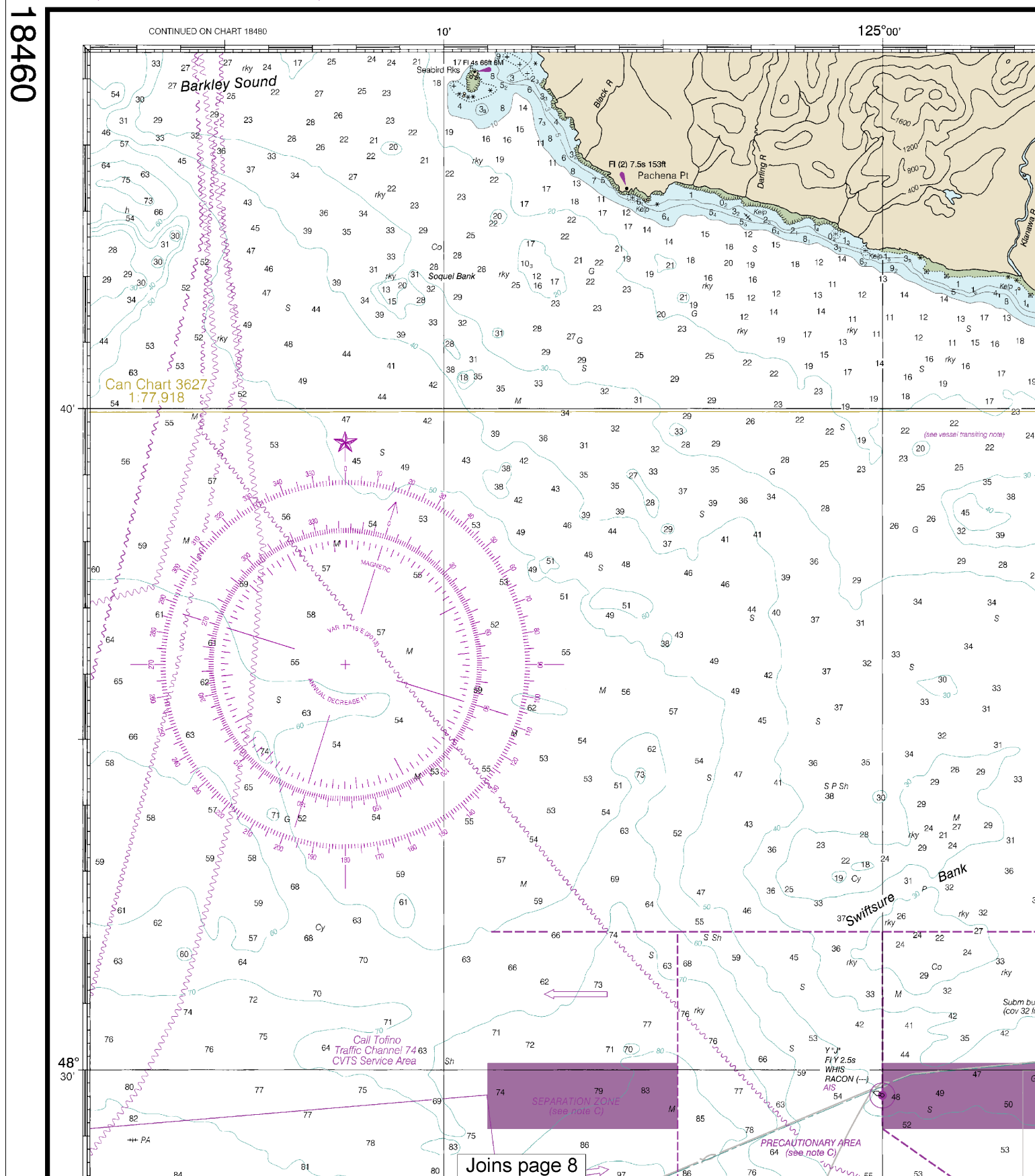


For more information on aids to navigation, including those on Western Rivers, please consult the latest USCG Light List for your area.

These volumes are available online at <http://www.navcen.uscg.gov>

(FATHOMS AND FEET TO 11 FATHOMS)

18460



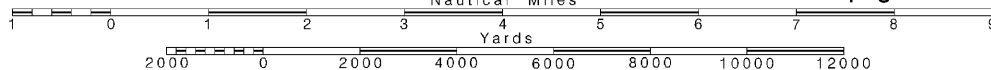
4

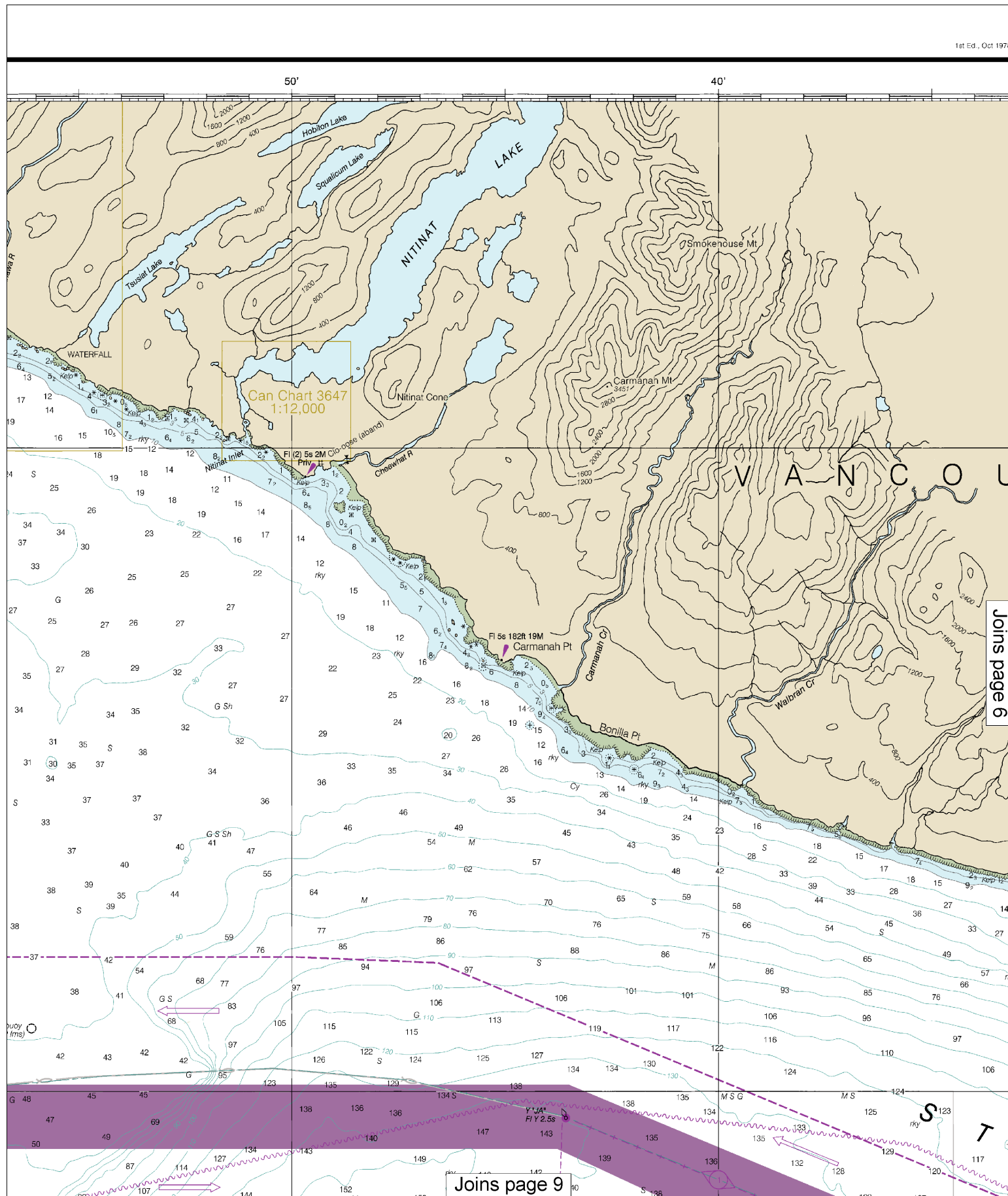
Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:100,000  
Nautical Miles

See Note on page 5.





This BookletChart was reduced to 70% of the original chart scale.  
The new scale is 1:142857. Barscales have also been reduced and  
are accurate when used to measure distances in this BookletChart.

30'

20'

## VESSEL TRANSITING

The U.S. Coast Guard and the Pacific States/British Columbia Oil Spill Task Force endorse a system of voluntary measures and minimum distances from shore for certain commercial vessels transiting along the coast anywhere between Cook Inlet, Alaska and San Diego, California. See U.S. Coast Pilot 7 or 8, Chapter 3 for details.

## NOTE K

Submerged submarine operations are conducted at various times in the waters contained on this chart. Proceed with caution.

## NOTE X

Within the 12-nautical mile Territorial Sea, established by Presidential Proclamation, some Federal laws apply. The Three Nautical Mile Line, previously identified as the outer limit of the territorial sea, is retained as it continues to depict the jurisdictional limit of the other laws. The 9-nautical mile Natural Resource Boundary off the Gulf coast of Florida, Texas, and Puerto Rico, and the Three Nautical Mile Line elsewhere remain in most cases the inner limit of Federal fisheries jurisdiction and the outer limit of the jurisdiction of the states. The 24-nautical mile Contiguous Zone and the 200-nautical mile Exclusive Economic Zone were established by Presidential Proclamation. Unless fixed by treaty or the U.S. Supreme Court, these maritime limits are subject to modification.

## COPYRIGHT

No copyright is claimed by the United States Government under Title 17 U.S.C. However, other nations may claim intellectual property rights on the compilation of data depicting the foreign waters shown on this chart.

## RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

## POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

## AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

See Canadian List of Lights, Buoys and Fog Signals for information not included in the U.S. Coast Guard Light List.

## CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:

○ (Accurate location) ○ (Approximate location)

## NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio station listed below provides continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Neah Bay, WA KIH-36 162.550 MHz

## CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

## CAUTION

## SUBMARINE PIPELINES AND CABLES

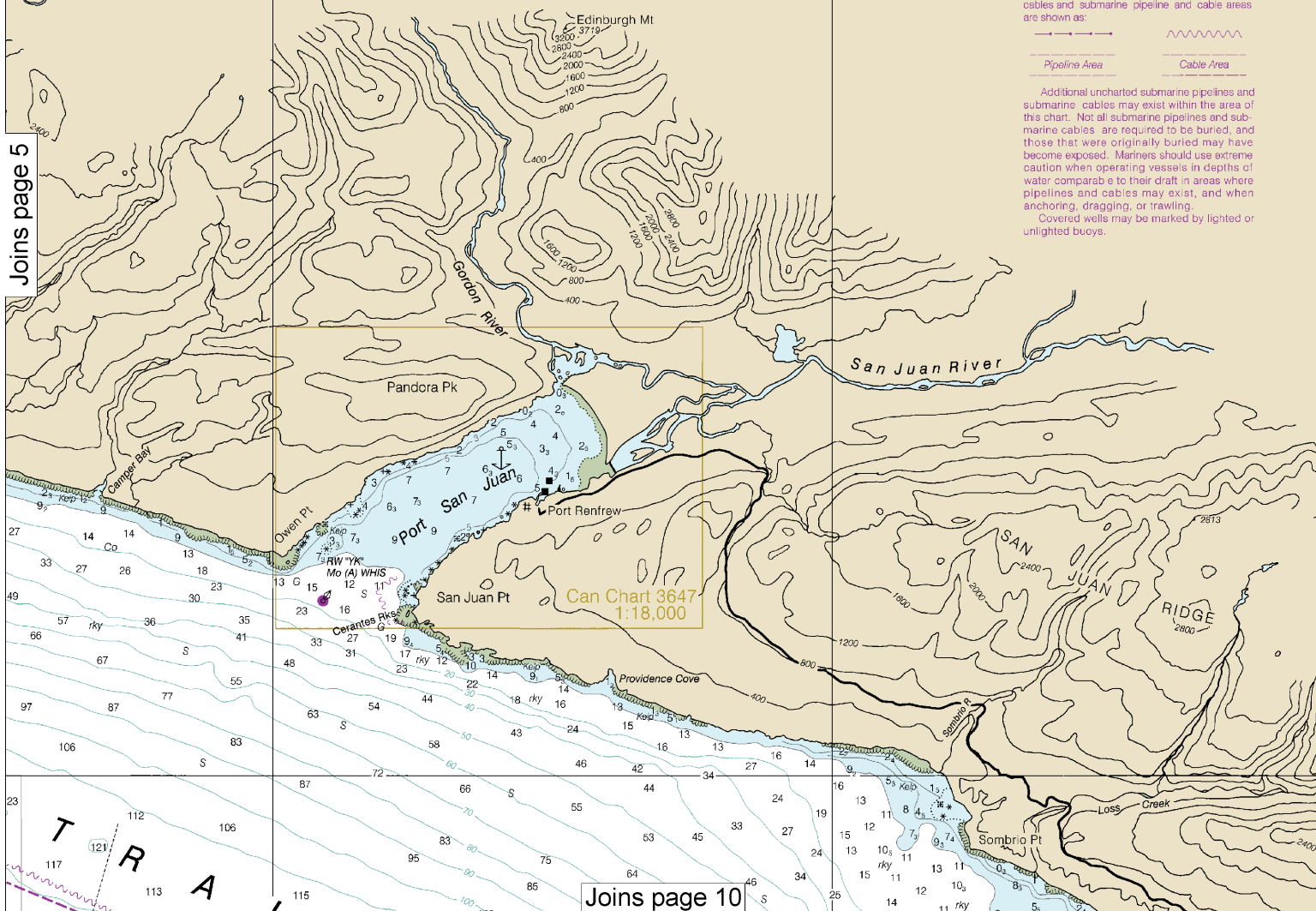
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:



Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling. Covered wells may be marked by lighted or unlighted buoys.

O U V E R I S L A N D

Joins page 5



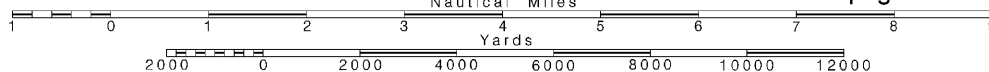
6

Note: Chart grid lines are aligned with true north.

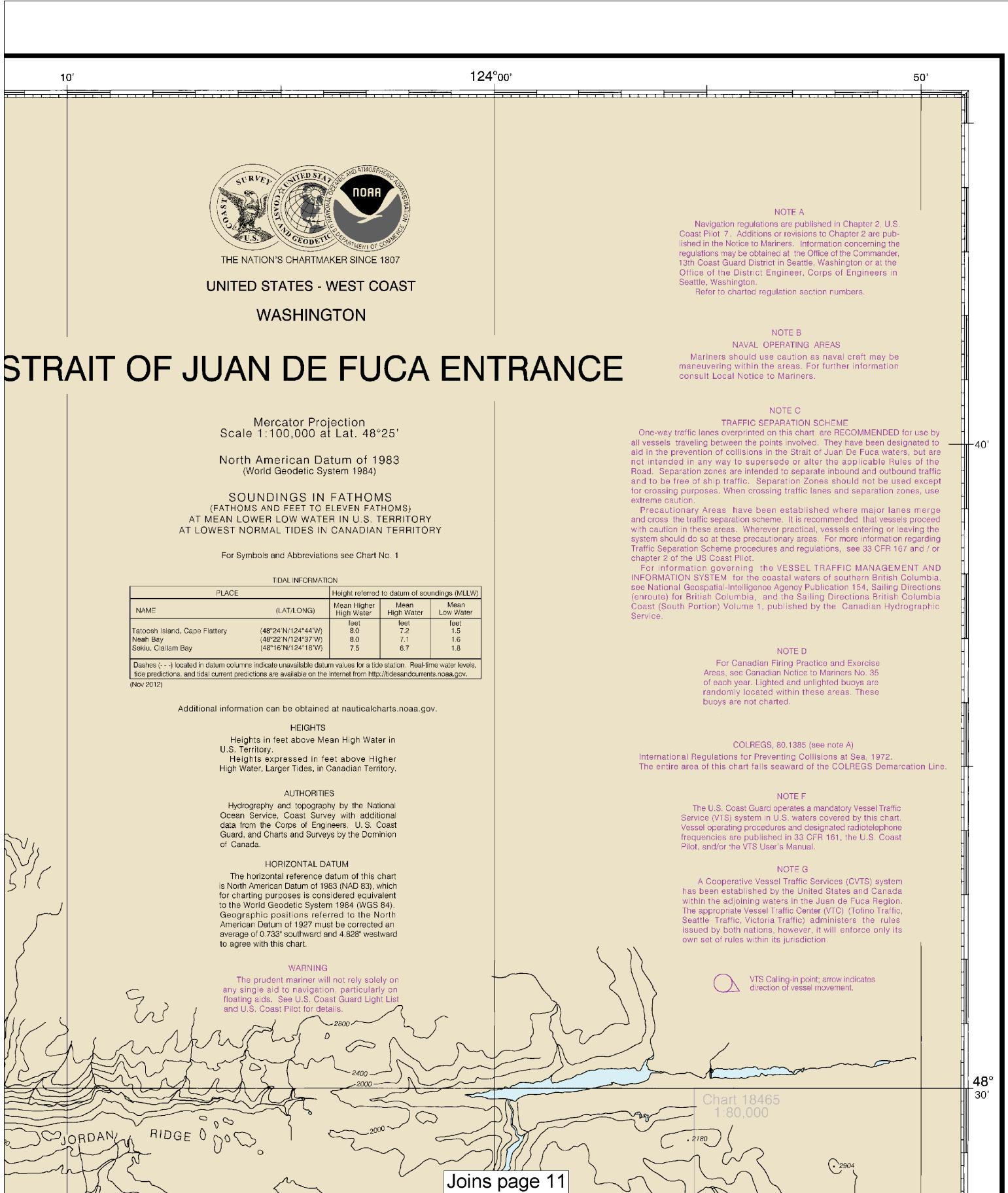
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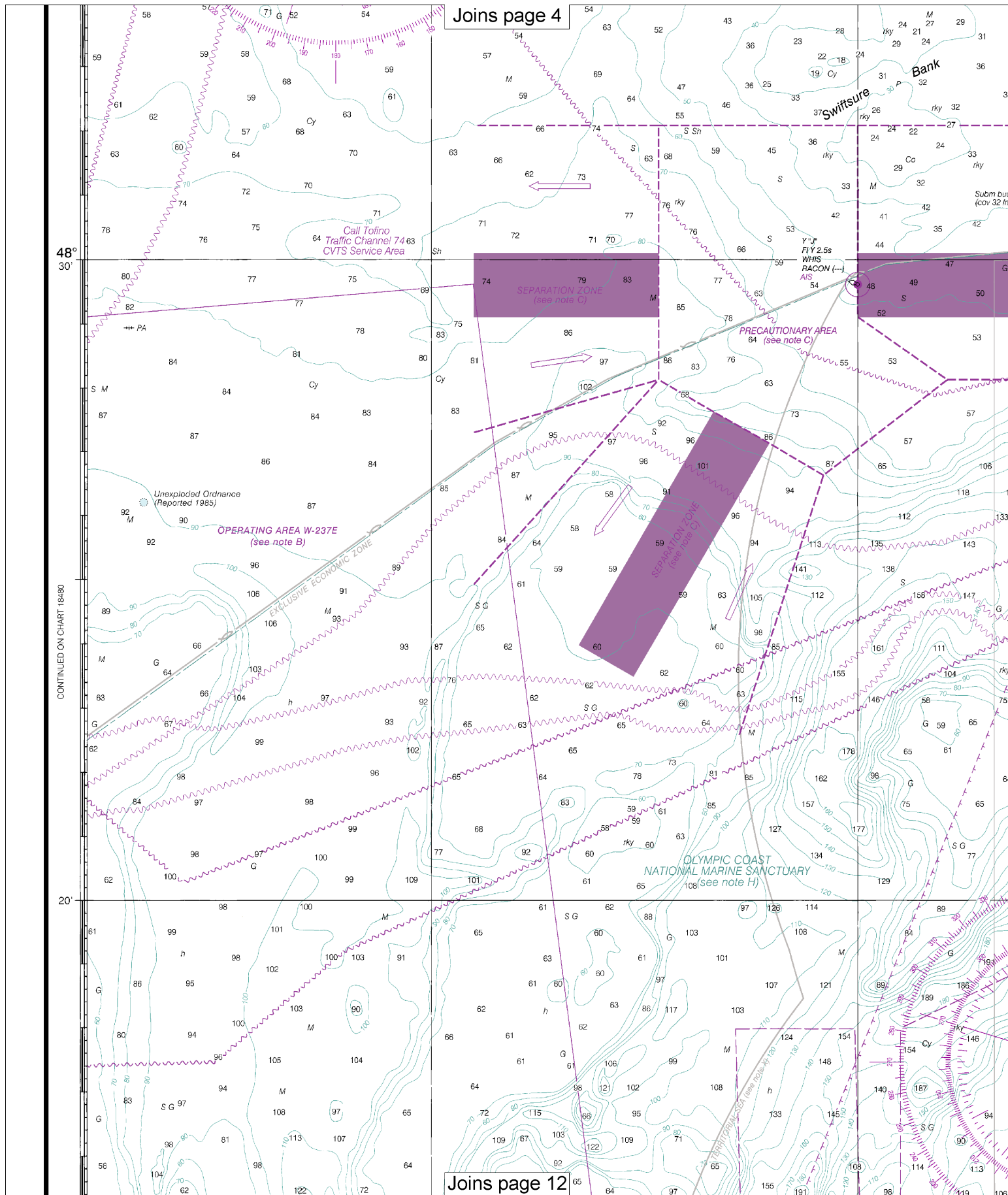
SCALE 1:100,000

See Note on page 5.









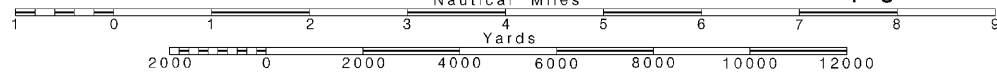
8

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

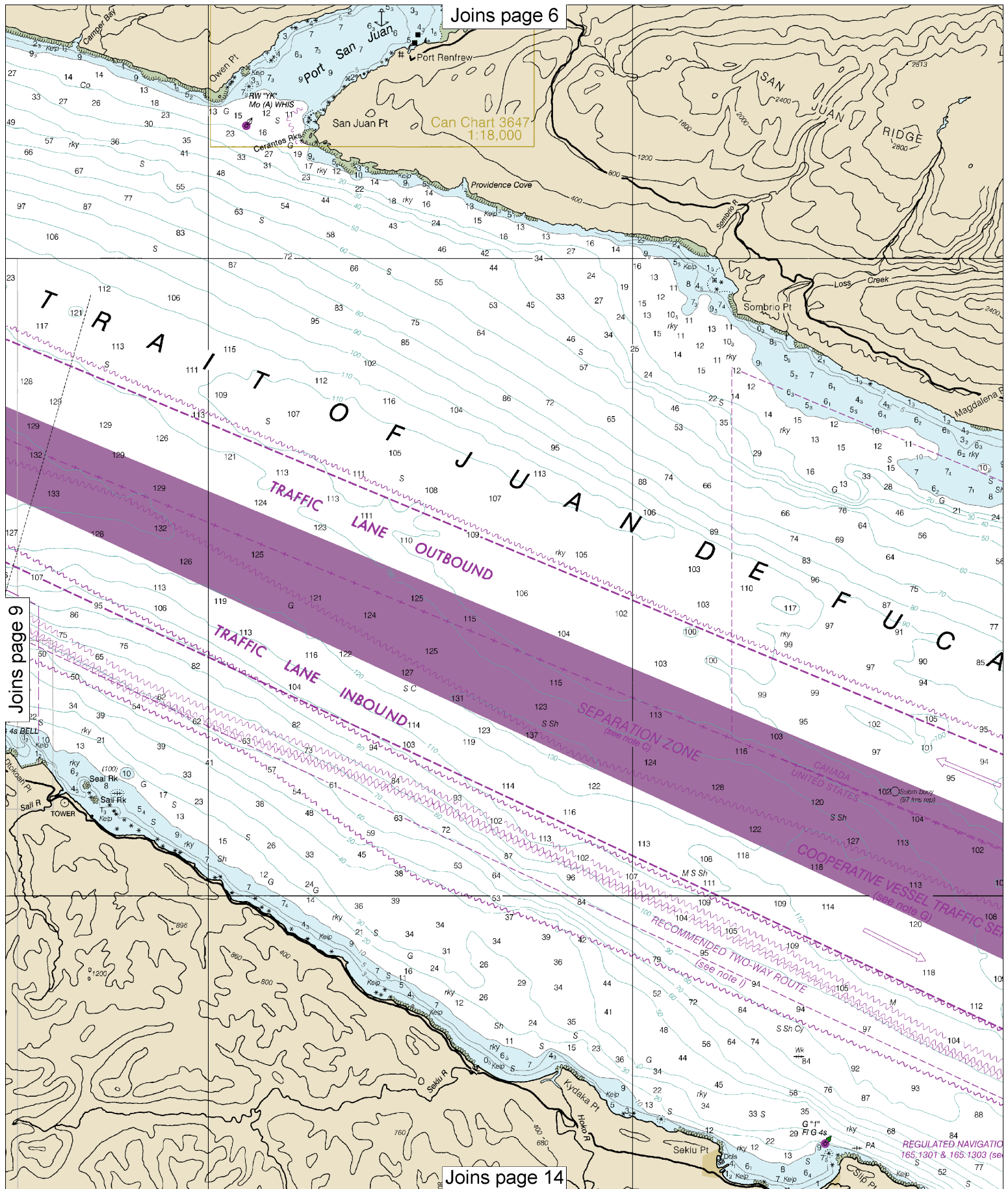
SCALE 1:100,000

See Note on page 5.









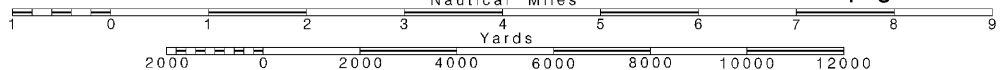
10

Note: Chart grid lines are aligned with true north.

Printed at reduced scale.

SCALE 1:100,000

See Note on page 5.



NOTE G

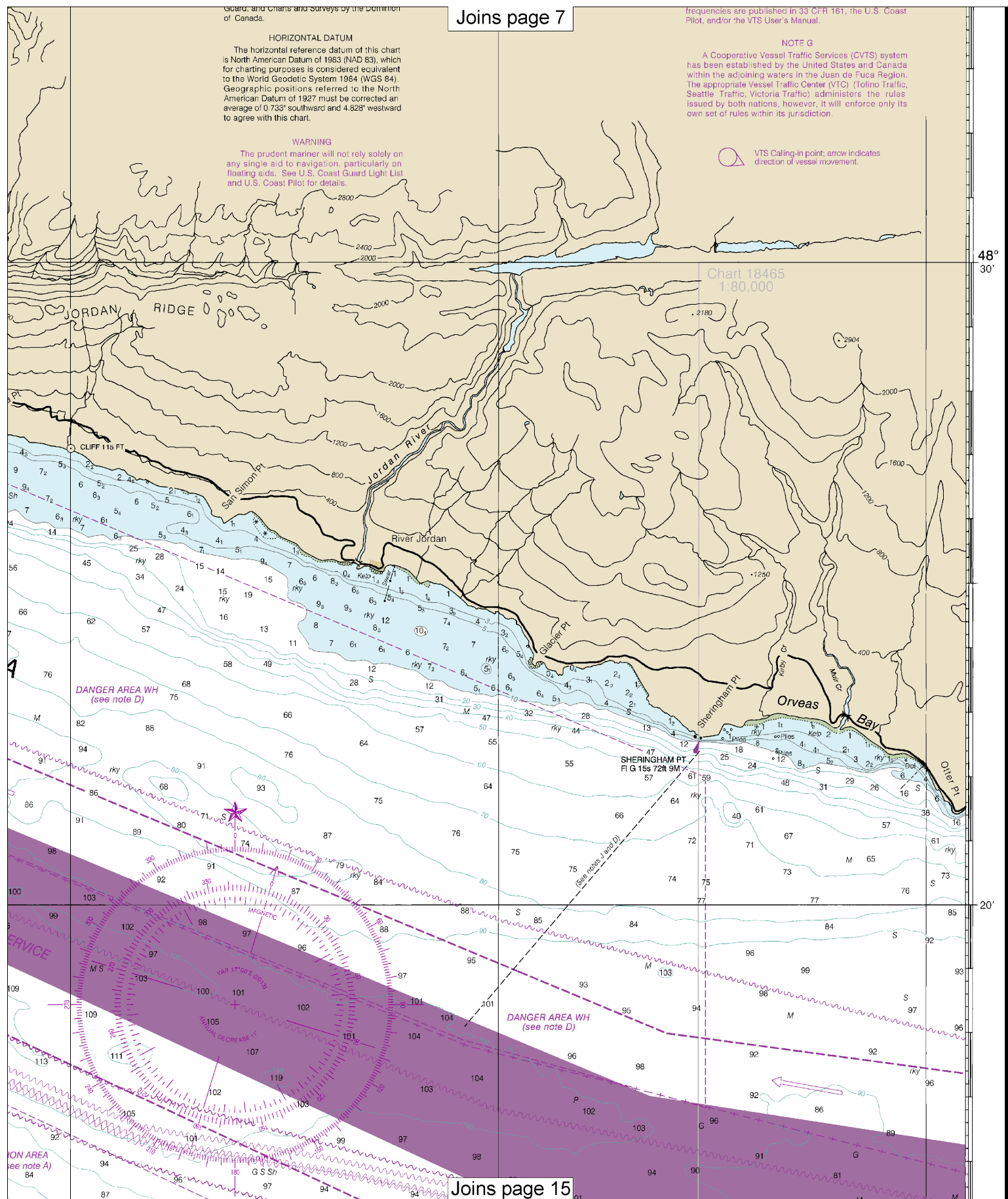
## HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.733" southward and 4.828" westward to agree with this chart.

**WARNING**

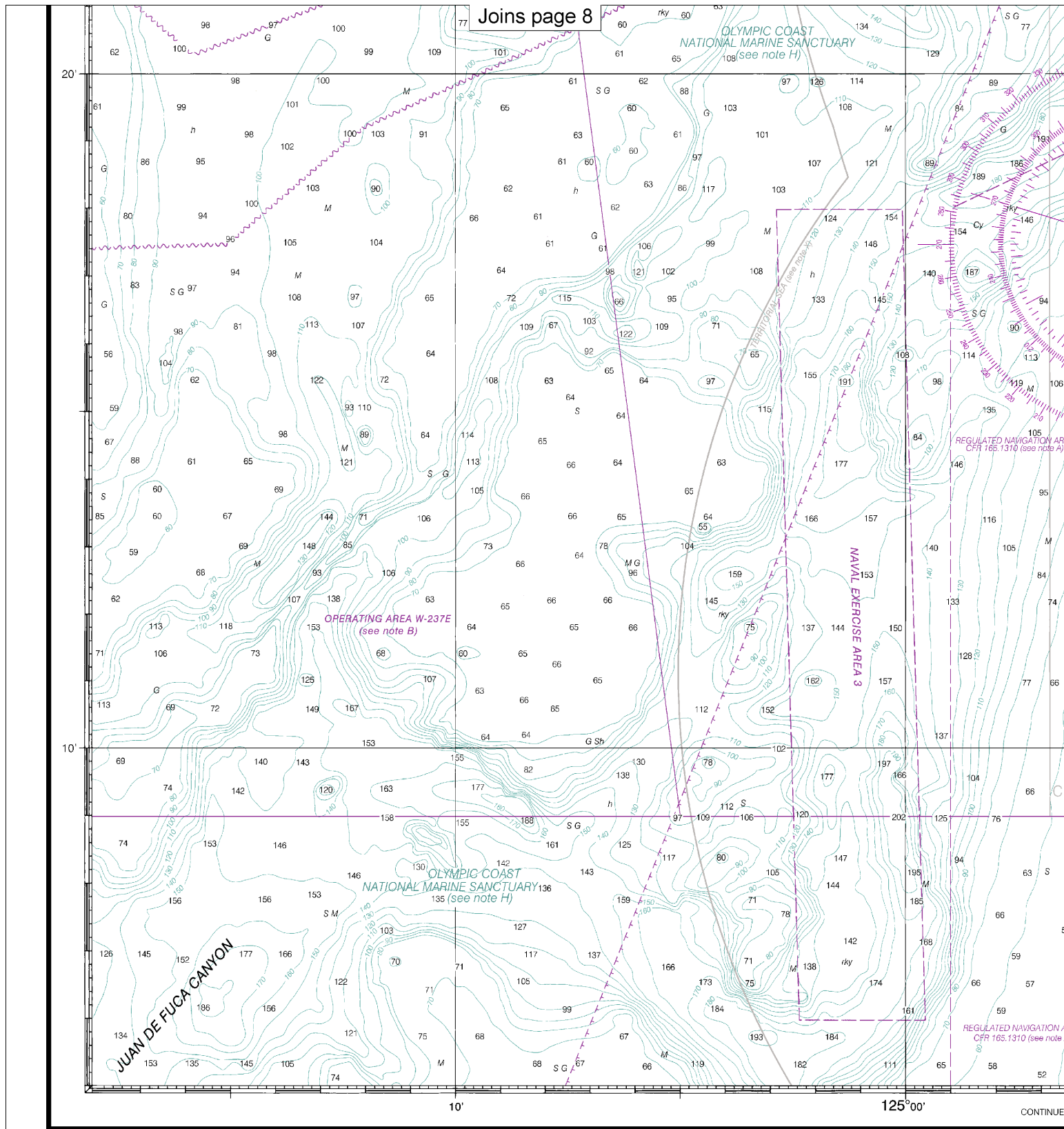
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

 VTS Calling-in point; arrow indicates direction of vessel movement.



Joins page 15





Joins page 8

OLYMPIC COAST  
NATIONAL MARINE SANCTUARY  
(see note H)

OPERATING AREA W-237E  
(see note B)

NAVAL EXERCISE AREA 3

REGULATED NAVIGATION AREA  
CFR 165.1310 (see note A)

OLYMPIC COAST  
NATIONAL MARINE SANCTUARY  
(see note H)

JUAN DE FUCA CANYON

REGULATED NAVIGATION AREA  
CFR 165.1310 (see note A)

18460

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at [nauticalcharts.noaa.gov](http://www.nauticalcharts.noaa.gov).

NOAA encourages users to submit inquiries, discrepancies or comments about this chart at <http://www.nauticalcharts.noaa.gov/staff/contact.htm>

14th Ed., Jan. 2013. Last Correction: 8/26/2016. Cleared through:  
LNM: 4816 (11/29/2016), NM: 5016 (12/10/2016), CHS: 1116 (11/25/2016)

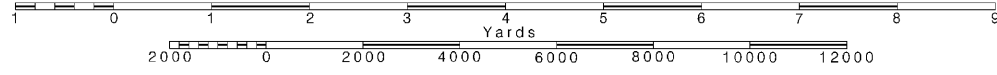
12

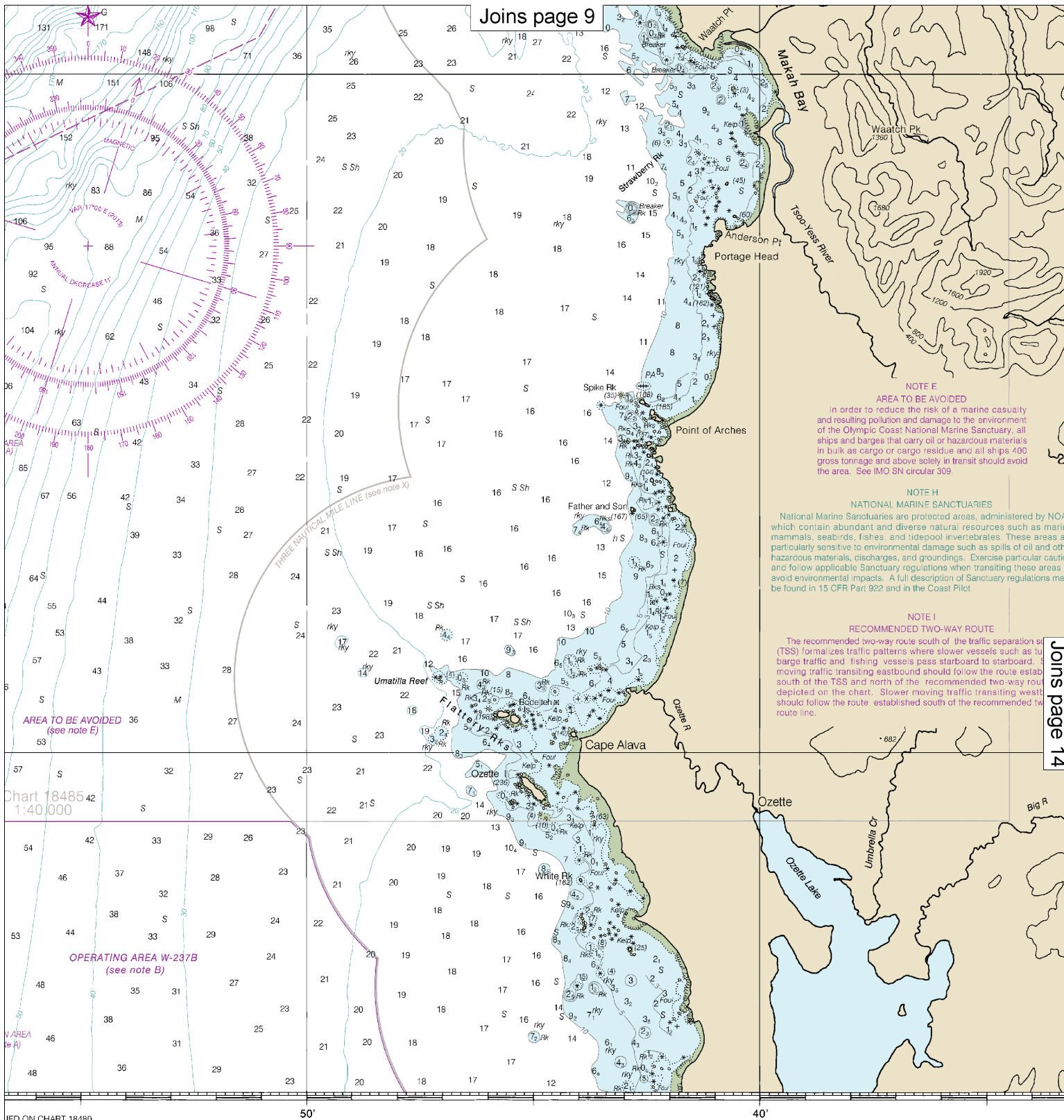
Note: Chart grid lines are aligned with true north.

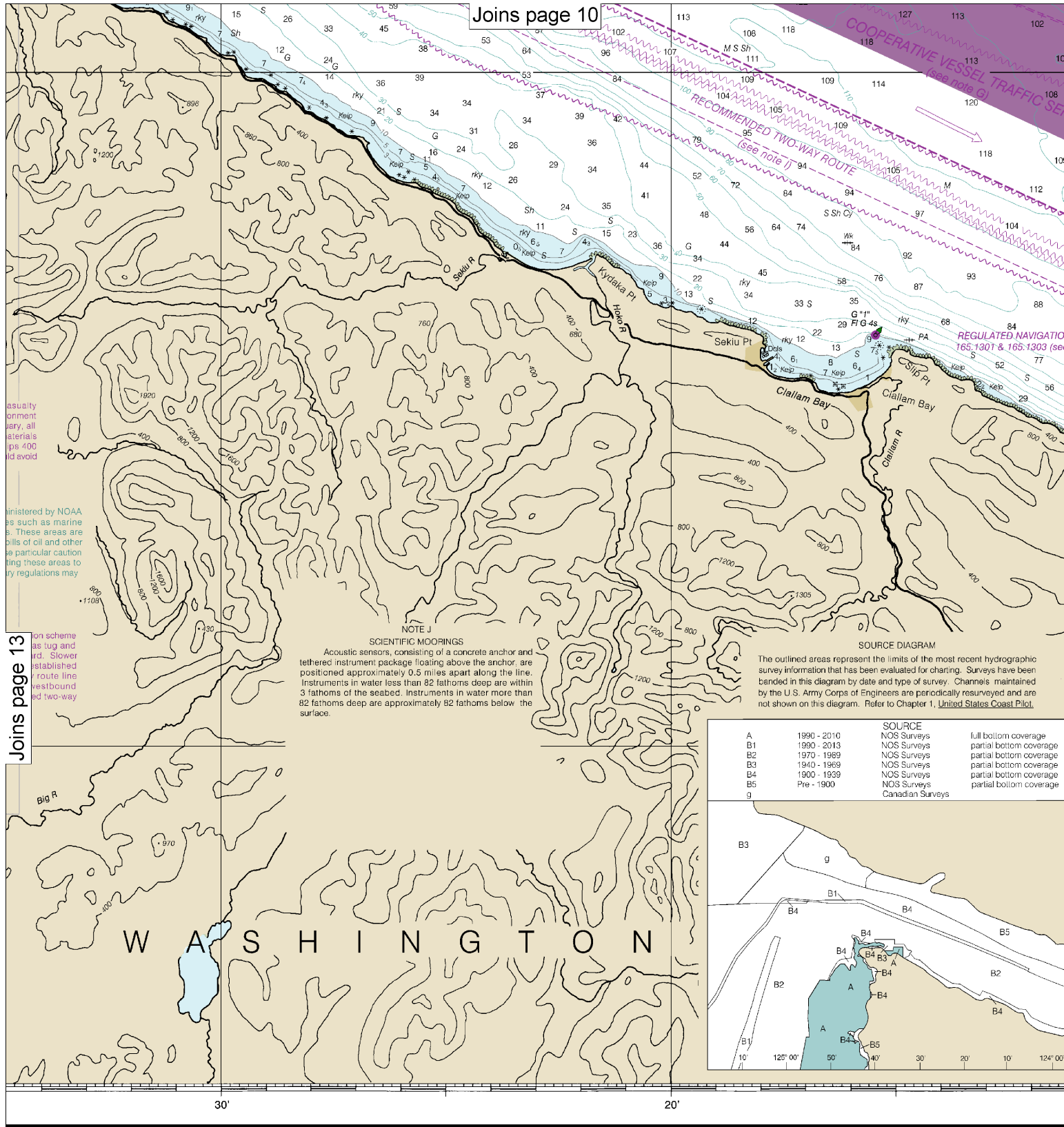
Printed at reduced scale.

SCALE 1:100,000  
Nautical Miles

See Note on page 5.







usually orientary, all materials 400 fathoms and avoid

Joins page 13  
ion scheme as tug and rd. Slower established route line westbound and two-way

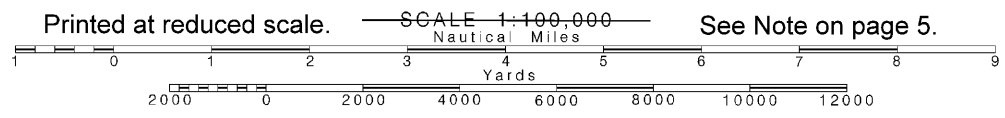
Published at Washington, D.C.  
DEPARTMENT OF COMMERCE  
NAUTICAL AND ATMOSPHERIC ADMINISTRATION  
NATIONAL OCEAN SERVICE  
COAST SURVEY

## SOUNDINGS IN FATHOMS

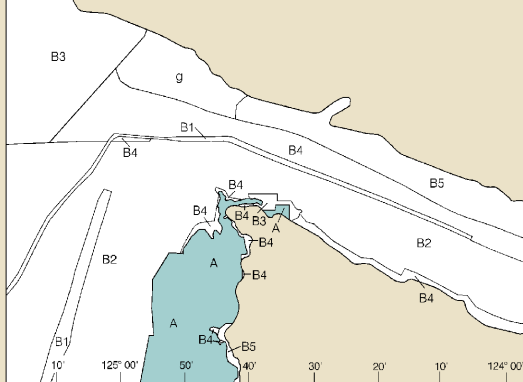
(FATHOMS AND FEET TO 11 FATHOMS)

14

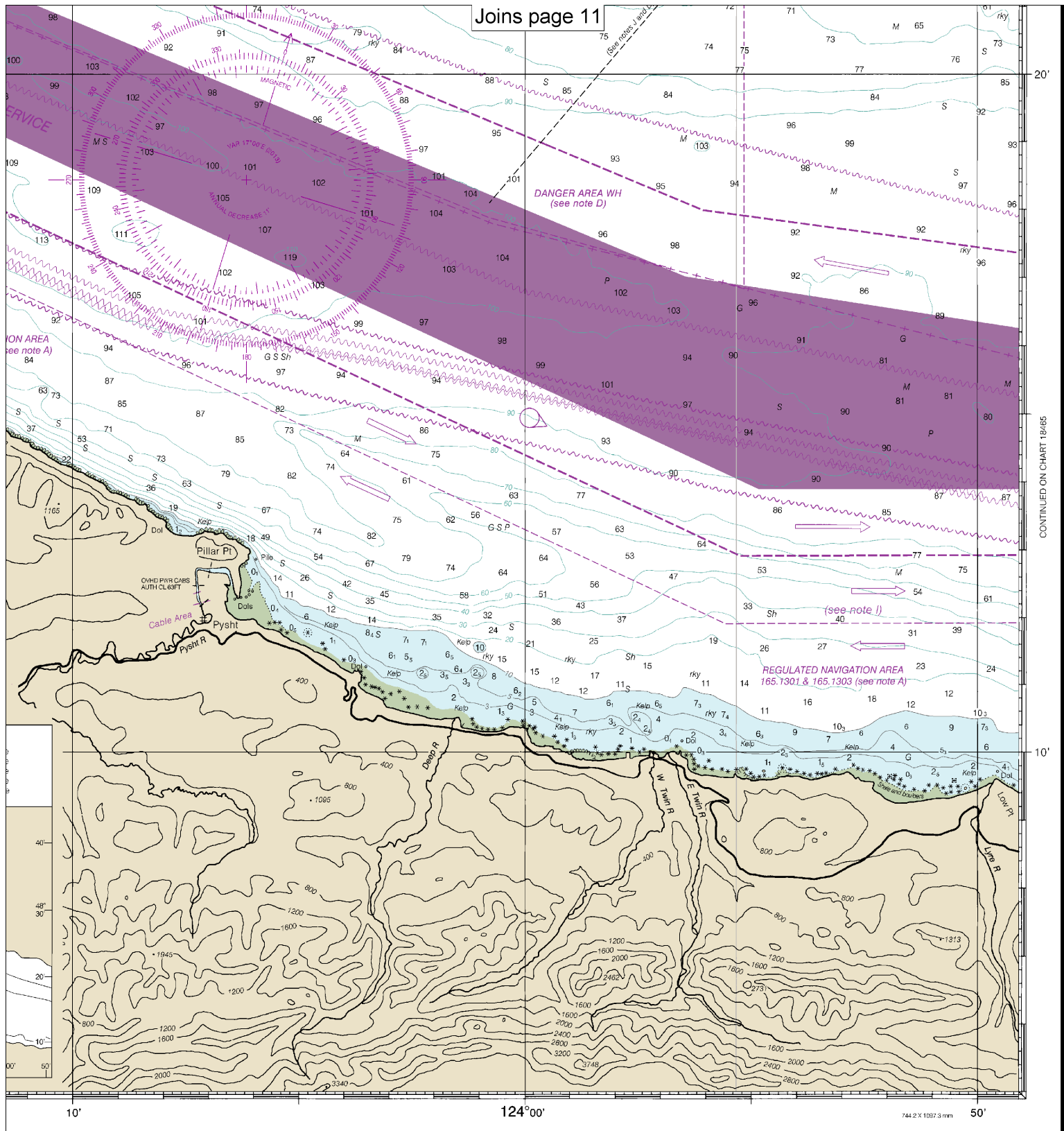
Note: Chart grid lines are aligned with true north.



SOURCE		
A	1990 - 2010	NOS Surveys
B1	1990 - 2013	NOS Surveys
B2	1970 - 1989	NOS Surveys
B3	1940 - 1969	NOS Surveys
B4	1900 - 1939	NOS Surveys
B5	Pre - 1900	NOS Surveys
g		Canadian Surveys

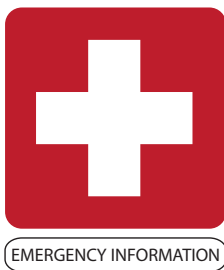






FATHOMS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
FEET	6	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102
METERS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

18460



## VHF Marine Radio channels for use on the waterways:

**Channel 6** – Inter-ship safety communications.

**Channel 9** – Communications between boats and ship-to-coast.

**Channel 13** – Navigation purposes at bridges, locks, and harbors.

**Channel 16** – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

**Channel 22A** – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

**Channels 68, 69, 71, 72 and 78A** – Recreational boat channels.

**Getting and Giving Help** — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.



**NOAA Weather Radio All Hazards (NWR)** is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

## Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

**HAVE ALL PERSONS PUT ON LIFE JACKETS!**

## Quick References

Nautical chart related products and information	—	<a href="http://www.nauticalcharts.noaa.gov">http://www.nauticalcharts.noaa.gov</a>
Interactive chart catalog	—	<a href="http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml">http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml</a>
Report a chart discrepancy	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx">http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx</a>
Chart and chart related inquiries and comments	—	<a href="http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs">http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs</a>
Chart updates (LNM and NM corrections)	—	<a href="http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html">http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html</a>
Coast Pilot online	—	<a href="http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm">http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm</a>
Tides and Currents	—	<a href="http://tidesandcurrents.noaa.gov">http://tidesandcurrents.noaa.gov</a>
Marine Forecasts	—	<a href="http://www.nws.noaa.gov/om/marine/home.htm">http://www.nws.noaa.gov/om/marine/home.htm</a>
National Data Buoy Center	—	<a href="http://www.ndbc.noaa.gov/">http://www.ndbc.noaa.gov/</a>
NowCoast web portal for coastal conditions	—	<a href="http://www.nowcoast.noaa.gov/">http://www.nowcoast.noaa.gov/</a>
National Weather Service	—	<a href="http://www.weather.gov/">http://www.weather.gov/</a>
National Hurricane Center	—	<a href="http://www.nhc.noaa.gov/">http://www.nhc.noaa.gov/</a>
Pacific Tsunami Warning Center	—	<a href="http://ptwc.weather.gov/">http://ptwc.weather.gov/</a>
Contact Us	—	<a href="http://www.nauticalcharts.noaa.gov/staff/contact.htm">http://www.nauticalcharts.noaa.gov/staff/contact.htm</a>



— For the latest news from Coast Survey, follow **@NOAAcharts**



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.